

Work Order ID 154894

Tuesday, January 03, 2017 1:11:05 PM

154894

Page 1

Item ID: D4654-3

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: O-Ring

Stop ***NS2***

Start Date: 1/5/2017 Start Qty: 12.00

Required Date: 1/17/2017 Req'd Qty: 12.00

12

12

DAS
13
9-89

JAN 02 2017

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

DAS
21
9-89

Date: JAN 02 2017

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4654	A								

100

0.00

100

Purchasing

Purchasing

Memo

Issue P/O:

Purchase Part Number: 320-017

Supplier: Speanur

Certificate of conformity is required

0.00

100

JAN 02 2017

DAS
13
9-89

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Packaging

Memo

0.04

100X SP 17-016
SP 17-0-9

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Description Work Order Deviation				Disposition																					
								Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐																			

Work Order ID 154894

Tuesday, January 03, 2017 1:11:05 PM

154894

Page 2

Item ID: D4654-3

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: O-Ring

Start Date: 1/5/2017 Start Qty: 12.00

12

Cust Item ID:

Required Date: 1/17/2017 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.00

Quality Control

100

DAS
38

JAN 10 2017

130

Identify as per dwg & Stock Location: 5/1A

0.00

130

Packaging

Memo

0.20

Packaging

100

JAN 10 2017

AS
39

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.20

Quality Control

DAS
21
9-89

JAN 12 2017

VS 17/1/17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Description Work Order Deviation				Disposition																					
							Completed By																		
							Lead hand / Supervisor Approval Verification																		
							QC / QA Coordinator Approval																		

Root Cause				FAULT CATEGORY							
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐		Power Loss/Surge ☐		Positioned Wrong ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐		Folio/Program ☐		Outside Dimensions ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐		Grain ☐		Over/Under tolerance ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐		Weld ☐		Part Incorrect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐		Wrong Stock Pulled ☐		Part Lost/Missing ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐		Out of Sequence ☐		Part Moved ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐		Off-set ☐		Drawing ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐		Mislabeled ☐		Finish ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐		Fit/Function ☐		Misread ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐		Misaligned/off center ☐		Turning Sequence ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____							
Misidentified ☐		Past Due ☐									

Picklist Print

Tuesday, January 03, 2017 1:11:08 PM

Page 1

Work Order ID: 154894

154894

Parent Item: D4654-3

D4654-3

Parent Item Name: O-Ring

Start Date: 1/5/2017

Required Date: 1/17/2017

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP REV:A NEW ISSUE 12--10-05 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
320-017		Purchased	No			110	Each	0.0000	1	100			
320-017									**				

O-Ring

100 x Sp17-01-6.
Sp17-01-9.

DQA: _____ Date: _____



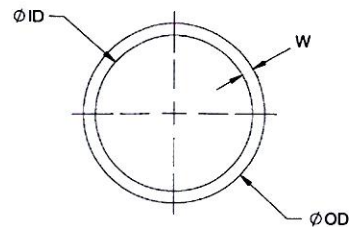
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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OTHER : _____					

SPECIFICATION CONTROL DRAWING



D4654-X O-RING

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 154894 MJS
17-01-03

DART PART NUMBER	DESCRIPTION	POSSIBLE VENDOR	VENDOR PART NUMBER	MATERIAL	DUROMETER	ID	OD	W	COLOUR	WEIGHT (lbs)
D4654-1	O-RING	SPAENAU	320-016	NITRILE (BUNA N)	75 SHORE A	0.614	0.750	0.070	BLACK	0.001
D4654-3	O-RING	SPAENAU	320-017	NITRILE (BUNA N)	75 SHORE A	0.676	0.816	0.070	BLACK	0.001

NOTES:

- 1) MATERIAL: PER TABLE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: PER QSI 044 6.7
- 7) WEIGHT: PER TABLE

RELEASED
2012-11-05

A	NEW ISSUE	MB	12.07.25
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	AP	DRAWING NO.	REV. A
MFG. APPR.	AP	D4654	SHEET 1 OF 1
APPROVED	AP	TITLE	SCALE
DE APPR.	AP	O-RING	NTS
DATE	12.07.25	COPYRIGHT © 2012 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34801**

Purchase Order Date 1/4/2017

PO Print Date 1/4/2017

Page Number 3 of 3

Order From :

VC-MAI001

MAIN INDUSTRIAL SALES LTD.
1475, TESSIER
HAWKESBURY, ON K6A 3S6
CA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 613 632 3595

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Total: \$5.50

7 320-017 ✓ O-Ring ✓ 1/6/2017
Yes
1/6/2017

AS PER DWG D4654 REV. A
B154894
SPEANUR P/N: 320-017

100.00
Each

\$0.75 \$75.10

~~1/0~~ SP17-01-9

Line Total: \$75.10

8 71401-45 PROCUREMENT 1/6/2017
QUALITY CLAUSES
No
1/6/2017

Procurement Quality Clauses
A005 RIGHT OF ENTRY
A026 CERTIFICATION OF MATERIAL CONFORMANCE
A040 NOTIFICATION OF QUALITY ESCAPE
A042 DART NOTIFICATION BY SUPPLIER
A043 RETENTION OF QUALITY DOCUMENTS

1.00 ✓

\$0.00 \$0.00

SP17-01-6

Line Total: \$0.00

DAS
38
9-89

PO Total: \$183.00

CX

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 2

Change Date: 1/4/2017

MAIN INDUSTRIAL SALES LTD.

1475 TESSIER ST.
HAWKESBURY ON K6A 3S6
Phone: (613) 632-3595 Ext. Fax: (613) 632-0262
sales@mainindustrialsales.com

Packing Slip

DATE January 09, 2017
NUMBER 0000202012
CUSTOMER NO. DART

BILL TO:

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY ON K6A 1K7

SHIP TO:

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY ON K6A 1K7

(613) 632-5200 Ext.

(613) 632-5200 Ext.

P.O. NUMBER	SALESPERSON	ORDER DATE	REQ. DATE	ORDER NUMBER
34477	EB	04-Jan-17		0000202012
F.O.B.	SHIP VIA	TERMS		
F.O.B. value	OUR TRUCK / LOCAL	NET 30 DAYS		
PART NUMBER	LOCATION	UOM	QUANTITY	
DESCRIPTION			REQ.	SHIPPED B.O.
0-320017 ✓ VITON O'RING ✓ YOUR PART #: 320-017 ✓		EA	✓ 100	✓ 100
507-01-a				
DAS 38				